Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): A method of performing measurements on at least a portion of a liquid sample in a clinical analyzer, comprising the steps of:

(a) providing a clinical analyzer with sample handling apparatus having one or more sample containers holding an amount of sample liquid; with sample metering apparatus having a proboscis, one or more metering tips having a tubular shape with a metering aperture at one end, a metering pump coupled with the proboscis; and sample processing apparatus having one or more test elements;

(b) attaching a tip to the proboscis to create a metering assembly;

(c) moving the metering assembly to an initial aspiration position, in which the metering aperture of the tip is immersed in sample liquid;

(d) creating a partial vacuum with the metering pump, causing a selected volume of sample liquid to be aspirated from a sample container into the tip;

(e) moving the metering assembly to a dispensing position;

(f) creating a partial pressure with the metering pump, causing a portion of the sample liquid to be dispensed from the metering tip onto a test element;

(g) the sample processing apparatus then performing at least one clinical chemistry test and analysis;

(h) the metering assembly moving to a tip ejection position;

(i) sealing the metering aperture of the metering tip;

(j) removing the metering tip from the proboscis;

([[j]] k) performing a sample quality measurement on the sample liquid in the ejected tip;

wherein said steps (b)-([[h]] g) are repeated in a primary analyzer cycle; wherein said ~~steps~~ step [[(h)-(j)]] (k) is ~~are~~ repeated in a secondary sample quality cycle; such that at least portions of the primary and secondary cycles occur simultaneously.

Claim 3 (original): The method of Claim 2, wherein the test elements are thin film slides.

Claim 4 (original): The method of Claim 2, wherein the step of performing a sample quality measurement includes performing at least one additional test that is also conducted during said step of performing clinical chemistry tests, further comprising the additional step of:

comparing the results of the tests, and using the comparison to calibrate the analyzer.

Claim 5 (original): The method of Claim 2, wherein the sample quality measurement is performed by a spectrophotometer.

Claim 5 (original): A method of performing measurements on at least a portion of a liquid sample in a clinical analyzer, comprising the steps of:

(a) providing a clinical analyzer with sample handling apparatus having one or more sample containers holding an amount of sample liquid; with sample metering apparatus having a proboscis, one or more metering tips having a tubular shape with a metering aperture at one end, a metering pump coupled with the proboscis; and sample processing apparatus having one or more test elements;

(b) attaching a tip to the proboscis to create a metering assembly;

(c) moving the metering assembly to an initial aspiration position, in which the metering aperture of the tip is immersed in sample liquid;

(d) creating a partial vacuum with the metering pump, causing a selected volume of sample liquid to be aspirated from a sample container into the tip;

(e) moving the metering assembly to a dispensing position;

(f) creating a partial pressure with the metering pump, causing a portion of the sample liquid to be dispensed from the metering tip onto a test element;

(g) the sample processing apparatus then performing at least one clinical chemistry test and analysis;

(h) sealing the metering aperture of the metering tip;

(i) the metering assembly moving to a tip ejection position;

(j) removing the metering tip from the proboscis;

([[j]] k) performing a spectrophotometric measurement on the sample liquid in the ejected tip;

wherein said steps (b)-([[h]] g) are repeated in a primary analyzer cycle; wherein said ~~steps~~ step [[(h)-(j)]] (k) is ~~are~~ repeated in a secondary spectrophotometric cycle; such that at least portions of the primary and secondary cycles occur simultaneously.

Claim 7 (canceled).

Claim 8 (original): The method of Claim 6, wherein the tips have a tubular body and a capillary tip, connected by a cone; such that the sample quality measurement is performed though the cone of the tip.

Claim 9 (original): The method of Claim 6, wherein at least some of said steps are conducted automatically by a computer.

Claim 10 (original): The method of Claim 6, wherein the sample quality measurement step includes measuring hemoglobin, lipids, bilirubin, and biliverdin.

Claim 11 (canceled)

Claim 12 (original): A method of performing measurements on at least a portion of a liquid sample in a clinical analyzer, comprising the steps of:

(a) providing a clinical analyzer with sample handling apparatus having one or more sample containers holding an amount of sample liquid; with sample metering apparatus having a proboscis, one or more metering tips having a tubular shape with a metering aperture at

one end, a metering pump coupled with the proboscis; and sample processing apparatus having one or more test elements;

(b) attaching a tip to the proboscis to create a metering assembly;

(c) moving the metering assembly to an initial aspiration position, in which the metering aperture of the tip is immersed in sample liquid;

(d) creating a partial vacuum with the metering pump, causing a selected volume of sample liquid to be aspirated from a sample container into the tip;

(e) moving the metering assembly to a dispensing position;

(f) creating a partial pressure with the metering pump, causing a portion of the sample liquid to be dispensed from the metering tip onto a test element;

(g) the sample processing apparatus then performing at least one clinical chemistry test and analysis;

(h) the metering assembly moving to a tip ejection position;

(i) sealing the metering aperture of the metering tip;

(j) removing the metering tip from the proboscis;

[[(j)]] (k) performing a sample quality measurement on the sample liquid in the ejected tip;

[[(k)]] (l) aspirating a selected auxiliary volume of sample liquid from the tip;

wherein said steps (b)-([[h]] _g_) are repeated in a primary analyzer cycle; wherein said steps [[(h)-(j)]] (k)-(l) are repeated in a secondary sample quality cycle; such that at least portions of the primary and secondary cycles occur simultaneously.

Claim ~~13~~ 10 (original): The method of Claim ~~12~~ 9, further comprising the step of:

(l) passing the auxiliary volume of sample liquid to a wet chemistry analyzer system.

Claim ~~14~~ 11 (original): The method of Claim ~~12~~ 9, further comprising the steps of:

(l) passing the auxiliary volume of sample liquid to a diluter system;

(m) diluting the auxiliary volume of sample liquid to form a diluted liquid;

(n) passing the diluted liquid to the sample processing apparatus; and

(o) the sample processing apparatus then performing at least one clinical chemistry test and analysis on the diluted liquid.

Claim 15 (canceled).

Claim 16 (canceled).

Claim 17 (canceled).

Claim ~~18~~ 12 (previously presented): The method of Claim ~~12~~ 9, wherein ~~an end of the metering tip has an aperture, further comprising the step before~~ said step (i) of removing the metering tip from the proboscis[[:]] further comprises crimping ~~and sealing~~ an end of the metering tip.

Claim ~~19~~ 13 (new): A method of performing measurements on at least a portion of a liquid sample in a clinical analyzer, comprising the steps of:

(a) providing a clinical analyzer with sample handling apparatus having one or more sample containers holding an amount of sample liquid; with sample metering apparatus having a proboscis, one or more metering tips having a tubular shape with a metering aperture at

one end, a metering pump coupled with the proboscis; and sample processing apparatus having one or more test elements;

(b) attaching a tip to the proboscis to create a metering assembly;

(c) moving the metering assembly to an initial aspiration position, in which the metering aperture of the tip is immersed in sample liquid;

(d) creating a partial vacuum with the metering pump, causing a selected volume of sample liquid to be aspirated from a sample container into the tip;

(e) moving the metering assembly to a dispensing position;

(f) creating a partial pressure with the metering pump, causing a portion of the sample liquid to be dispensed from the metering tip onto a test element;

(g) the sample processing apparatus then performing at least one clinical chemistry test and analysis;

(h) the metering assembly moving to a tip ejection position;

(i) crimping and sealing the metering aperture of the metering tip:

(j) removing the metering tip from the proboscis:

(k) performing a sample quality measurement on the sample liquid in the ejected tip;

(l) aspirating a selected auxiliary volume of sample liquid from the tip;

wherein said steps (b)-(g) are repeated in a primary analyzer cycle; wherein said step (k) is repeated in a secondary sample quality cycle; such that at least portions of the primary and secondary cycles occur simultaneously.